UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,296	12/23/2003	Hyeoun-Joo So	P-0611	7851

34610 7590 10/03/2005	EXAMINER	
FLESHNER & KIM, LLP	RAMOS FELICIANO, ELISEO	
P.O. BOX 221200	ART UNIT	PAPER NUMBER
CHANTILLY, VA 20153	2687	

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
	10/743,296	SO, HYEOUN-JOO
Office Action Summary	Examiner	Art Unit	
	Eliseo Ramos-Feliciano	2687	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>23 December 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>23 December 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

       1.☒ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date <u>see Office action</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

DETAILED ACTION

Priority

1.   Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers

have been placed of record in the file.

Information Disclosure Statement

2.   The references listed in the Information Disclosure Statement filed on December 23,

2003, September 8, 2004, and June 28, 2005 have been considered by the examiner (see attached

PTO-1449 or PTO/SB/08A and 08B forms).

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on
> sale in this country, more than one year prior to the date of application for patent in the United States.

4.   **Claims 1-6, 8-12, 15-19, and 21-22** are rejected under 35 U.S.C. 102(b) as being

anticipated by Krishnan (US Patent Application Publication Number 2002/0168976 A1).

Regarding **claim 1**, Krishnan discloses a frequency searching method comprising:

receiving system information from a network (the system information is received in form

of static table 110, which is transferred from a base station to the device 100 – page 3, paragraph

0027, lines 32-38) (the system information or static table 110 includes roaming list and lookup

table – paragraph 0014);

obtaining a usage frequency (220) of each service vendor (e.g. "Airtouch" or "Sprint" –

paragraph 0009) from the received system information (system information/static table 110

includes usage frequency/block or channel number which is indicative of frequency of

transmission/usage frequency – paragraph 0010); and

searching a frequency (channel) based on the obtained usage frequency (the location of

device 100 may match multiple indices, with multiple channels 220 correspondent to those; the

channels are searched until a preferred system connection is made – page 3, paragraph 0028,

lines 19-25; paragraph 0016 and claims 9, 27 of Krishnan).

Regarding **claim 2**, Krishnan discloses everything claimed as applied above (see *claim*

1). In addition, the system information (static table / roaming list / lookup table) is received by a

mobile communication terminal (device 100) from the network (base station) (paragraph 0027,

lines 32-38).

Regarding **claim 3**, Krishnan discloses everything claimed as applied above (see *claim*

1). In addition, searching the frequency (channel) comprises performing a cell search of

frequencies of a service vendor (the channels are searched until a preferred system connection is

made – paragraph 0028, lines 19-25; paragraph 0016 and claims 9, 27 of Krishnan).

Regarding **claim 4**, Krishnan discloses everything claimed as applied above (see *claim*

1). In addition, storing the usage frequency of each service vendor in memory (108) of user

equipment (paragraph 0027, lines 6-8).

Regarding **claim 5**, Krishnan discloses everything claimed as applied above (see *claim*

1). In addition, receiving the system information comprises receiving the system information in a

system information block (table – paragraph 0027, lines 32-38).

Regarding **claim 6**, Krishnan discloses everything claimed as applied above (see *claim 5*). In addition, transmitting the system information block including the usage frequency of each service vendor (e.g. "Airtouch" or "Sprint" – paragraph 0009).

Regarding **claim 8**, Krishnan discloses everything claimed as applied above (see *claim 1*). In addition, performing a cell search by frequency bands when a requested frequency is not found when searching frequencies (the channels are searched until a preferred system connection is made – page 3, paragraph 0028, lines 19-25; therefore, if no system connection is made, that is, if frequency/channel is not found "another cell search" takes place until a preferred system connection is made).

Regarding **claim 9**, Krishnan discloses everything claimed as applied above (see *claim 1*). In addition, updating stored frequencies based on the received system information from the network (paragraph 0027, lines 32-38).

Regarding **claim 10**, Krishnan discloses a frequency searching method comprising:

receiving usage frequency data (220) of at least one service vendor (e.g. "Airtouch" or "Sprint" – paragraph 0009) from a network (the system information is received in form of static table 110, which is transferred from a base station to the device 100 – page 3, paragraph 0027, lines 32-38) (the system information or static table 110 includes roaming list and lookup table – paragraph 0014) (system information/static table 110 includes usage frequency/block or channel number which is indicative of frequency of transmission/usage frequency – paragraph 0010);

storing the received usage frequency data in user equipment (stored in memory 108 of device 100 – paragraph 0027);

performing a cell search of a stored frequency (channel) of a pertinent service vendor in a

frequency search (the location of device 100 may match multiple indices, with multiple channels

220 correspondent to those; the channels are searched until a preferred system connection is

made – page 3, paragraph 0028, lines 19-25; paragraph 0016 and claims 9, 27 of Krishnan); and

performing another cell search by frequency bands when a frequency is not found in the

stored frequencies of the pertinent service vendor (the channels are searched until a preferred

system connection is made – page 3, paragraph 0028, lines 19-25; therefore, if no system

connection is made, that is, if frequency/channel is not found "another cell search" takes place

until a preferred system connection is made).

Regarding **claim 11**, Krishnan discloses everything claimed as applied above (see *claim*

10). In addition, the user equipment (mobile communication device 100 – Figure 2) comprises a

mobile communication terminal (paragraph 0025).

Regarding **claim 12**, Krishnan discloses everything claimed as applied above (see *claim*

10). In addition, transmitting the usage frequency from the network through a system

information block (table – paragraph 0027, lines 32-38).

Regarding **claim 15**, Krishnan discloses everything claimed as applied above (see *claim*

10). In addition, updating stored frequencies based on received system information from the

network (paragraph 0027, lines 32-38).

Regarding **claim 16**, Krishnan discloses a mobile communication apparatus (device 100 –

Figure 2; paragraphs 0025-0027) comprising:

a receiving device (receiver 104 – Figure 2) to receive system information (the system

information is received in form of static table 110, which is transferred from a base station to the

device 100 – page 3, paragraph 0027, lines 32-38) (the system information or static table 110

includes roaming list and lookup table – paragraph 0014);

a memory (memory 108 – Figure 2) to store (paragraph 0027) information regarding

service vendors (e.g. "Airtouch" or "Sprint" – paragraph 0009); and

a processing device (processor 108 – Figure 2) to obtain a usage frequency of a particular

service vendor from the memory (paragraphs 0025-0027).

Regarding **claim 17**, Krishnan discloses everything claimed as applied above (see *claim*

16). In addition, the system information comprises usage information of service vendors (system

information/static table 110 includes usage frequency/block or channel number which is

indicative of frequency of transmission/usage frequency – paragraph 0010).

Regarding **claim 18**, Krishnan discloses everything claimed as applied above (see *claim*

16). In addition, the processing device performs a cell search of frequencies of service vendors

stored in the memory (the location of device 100 may match multiple indices, with multiple

channels 220 correspondent to those; the channels are searched until a preferred system

connection is made – page 3, paragraph 0028, lines 19-25; paragraph 0016 and claims 9, 27 of

Krishnan).

Regarding **claim 19**, Krishnan discloses everything claimed as applied above (see *claim*

16). In addition, the receiving device receives the system information in a system information

block (table – paragraph 0027, lines 32-38).

Regarding **claim 21**, Krishnan discloses everything claimed as applied above (see *claim*

16). In addition, the processing device performs a cell search based on frequency bands when

searching the frequencies stored in the memory (the location of device 100 may match multiple

indices, with multiple channels 220 correspondent to those; the channels are searched until a

preferred system connection is made – page 3, paragraph 0028, lines 19-25; paragraph 0016 and

claims 9, 27 of Krishnan).

Regarding **claim 22**, Krishnan discloses everything claimed as applied above (see *claim*

16). In addition, the processing device updates stored frequencies in the memory based on

received system information from the network (paragraph 0027, lines 32-38).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   **Claims 7, 13-14, and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Krishnan (US Patent Application Publication Number 2002/0168976 A1).

Regarding **claim 7**, Krishnan discloses everything claimed as applied above (see *claim*

1). However, Krishnan fails to particularly disclose that the system information is received from

the network through a broadcast control channel.

Using a broadcast control channel to send system information is a technique well known

in the art the Examiner takes Official Notice of this notion. This technique has the advantages of

reduced system load, releasing resources, and increased capacity because in this way system

signaling does not occupy traffic channels.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time

the invention was made to enable Krishnan so that the system information is received from the

network through a broadcast control channel since this technique has the advantages of reduced system load, releasing resources, and increased capacity because in this way system signaling does not occupy traffic channels.

Regarding **claim 13**, Krishnan discloses everything claimed as applied above (see *claim 12*). However, Krishnan fails to particularly disclose that the system information is transmitted through a broadcast control channel.

Using a broadcast control channel to send system information is a technique well known in the art the Examiner takes Official Notice of this notion. This technique has the advantages of reduced system load, releasing resources, and increased capacity because in this way system signaling does not occupy traffic channels.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to enable Krishnan so that the system information is transmitted through a broadcast control channel since this technique has the advantages of reduced system load, releasing resources, and increased capacity because in this way system signaling does not occupy traffic channels.

Regarding **claim 14**, Krishnan discloses everything claimed as applied above (see *claim 10*). However, Krishnan fails to particularly disclose that the network comprises a Radio Resource Control of a UMTS Terrestrial Radio Access Network.

Nevertheless, Krishnan discloses IS-95 CDMA (paragraphs 0005, 0007). IS-95 CDMA is CDMAone or CDMA-2000, the North American counterpart of European W-CDMA which is the core of UMTS. Therefore, UMTS is just a particular requirement of a particular system;

therefore, obvious expedient of engineering design. For example, UMTS would be desirable in

European implementations.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time

the invention was made to enable Krishnan's invention in UMTS because this would enable

European implementations of the invention as explained above.

Regarding **claim 20**, Krishnan discloses everything claimed as applied above (see *claim*

16). However, Krishnan fails to particularly disclose that the system information is received from

the network through a broadcast control channel.

Using a broadcast control channel to send system information is a technique well known

in the art the Examiner takes Official Notice of this notion. This technique has the advantages of

reduced system load, releasing resources, and increased capacity because in this way system

signaling does not occupy traffic channels.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time

the invention was made to enable Krishnan so that the system information is received from the

network through a broadcast control channel since this technique has the advantages of reduced

system load, releasing resources, and increased capacity because in this way system signaling

does not occupy traffic channels.

Conclusion

7.   Any inquiry concerning this communication from the examiner should be directed to
Eliseo Ramos-Feliciano whose telephone number is 571-272-7925. The examiner can normally
be reached from 8:00 a.m. to 5:30 p.m. on 5-4/9 1st Friday Off.
        If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Lester G. Kincaid, can be reached on (571) 272-7922. The fax phone number for the
organization where this application or proceeding is assigned is 571-273-8300.
        Information regarding the status of an application may be obtained from the Patent
Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ELISEO RAMOS-FELICIANO
PATENT EXAMINER

ERF/erf
September 22, 2005